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22470 7590 01/25/2007 HAYNES BEFFEL & WOLFELD LLP P O BOX 366 HALF MOON BAY, CA 94019			EXAMINER VAN DOREN, BETH	
			ART UNIT 3623	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	
3 MONTHS			01/25/2007	
			DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/905,174

Applicant(s)

DVORAK ET AL.

Examiner

Beth Van Doren

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 and 57-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 and 57-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/05/2006 has been entered.

2. The following non-final office action is in response to communications received 12/05/06. Claims 1, 4, 23, and 59 have been amended. Claims 1-26 and 57-64 are pending and addressed below.

Response to Amendment

3. Applicant's amendment to claim 59 is sufficient to overcome the 35 U.S.C. 112, second paragraph, rejections set forth in the previous office action.

Response to Arguments

4. Applicant's arguments with regard to the claim objections have been fully considered but they are not persuasive. Applicant asserts that claims 60-61 and 63-64 have a difference in wording from claims 57-58. However, Examiner has re-reviewed these claims and is unable to find such a difference. Therefore, these claim objections have been maintained and are reasserted below.

5. Applicant's arguments with respect to the 101 rejection of claim 62 have been fully considered and are persuasive. However, upon further consideration, new 101 rejections have been established below.

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6. With regards to applicant's comment on page 8 stating that the finality of the 07/05/2006 office action was inappropriate because the new 101 rejection of claim 62 was not necessitated by amendment, Examiner respectfully disagrees. Examiner reminds applicant that he added claim 62 in the response of 04/21/2006, and thus the office action of 07/05/2006 was examiner's first opportunity to treat this claim on the merits. Therefore, the new grounds of rejection was necessitated by the Applicant's change to the presented claims and the finality of the office action was proper.

7. Applicant's arguments with regards to the 35 USC 102 rejections based on Fields et al. (U.S. 5,459,656) have been fully considered, but they are not persuasive. In the remarks, Applicant argues that Fields et al. does not teach or suggest (1) calendaring both past and future disruptive events, since separate descriptions are given in the applying step as to how to apply impact estimates, (2) a distant end date that is at or after the end of the planning cycle or far enough out that the event is open ended, (3) using step functions or step impacts (which are synonymous terms) and modeling by step impacts, (4) disruptive events producing returned goods at such a rate as to produce negative percentages of daily sales (claim 2), (5) impact estimates as factors multiplied by the sales history quantities and the projected demand (claim 3), (6) waiting a predetermined period after a disruptive event has happened, in order to have some historical perspective on actual impact (unlike Fields et al.'s rolling average) (claim 23).

In response to argument (1), Examiner respectfully disagrees. Claim 1 recites "calendaring one or more disruptive events with associated impact estimates to apply to the items at the locations". Thus, the claim only requires that a single disruptive event be calendared.

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Further, the claim states that the disruptive event has a start data and an open-ended or distant end date that is modeled on sales history or projected demand. Therefore, the claim does not require that both past and future disruptive events are calendared. This is further supported by the claim limitation reciting “a step impact on sales history or projected demand”, thus requiring only an impact on either one or the other of sales history or projected demand (and thus only one of the applied impact values).

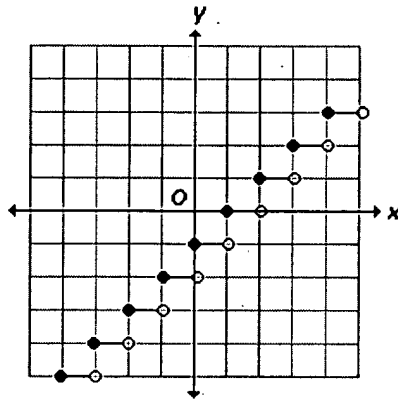
Fields et al. does teach that impact estimates are both for disruptive events that already have taken place and are applied to sales history quantities used to project demand (See column 4, lines 60-67, column 8, lines 1-5, column 9, lines 1-15, and column 10, lines 50-67, wherein the impact factors for the recent past are used to update the sales history quantities), as well as for disruptive events that have not yet take place are applied to adjust the projected demand (See column 3, lines 54-66, column 4, lines 30-42, column 5, lines 1-7, and column 8, lines 10-30, wherein the impact factors for an event, such as a holiday, are used to adjust demand from normally occurring days (i.e. the difference between a normal Sunday and a promotional Sunday)).

In response to argument (2), Examiner respectfully disagrees. First, claim 1 recites that the event is either open-ended or has a distant end date. Second, Fields et al. does teach a distant end date in column 3, lines 4-12 and line 60-column 4, line 20 and 30-42, column 7, lines 54-57, column 8, lines 11-20, where an end date and duration are specified, wherein the duration until the end date could be a day or number of days.

In response to argument (3), Examiner respectfully disagrees. Step functions are well known in the art as a special type of function with different constant values over adjacent

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subintervals, thus having discontinuities at the ends of each interval and forming a graph that is a series of line segments. This is graphically represented in forms such as:



The term step impact is not a synonymous term to step function to one of ordinary skill in the art. For example, if one turns to a Probability and Statistics textbook or an OR textbook, one would be able to readily obtain a specific, known in the art definition, whereas step impact would not appear specifically in the same text. Therefore, for clarity, if Applicant intends for step impact to be synonymous with step function, she suggests using such a term in the claims.

Thus, Fields et al. teaches a step impact – an impact that causes the modeled demand to move and shift – in at least column 3, lines 4-12 and line 60-column 4, line 20 and 30-42, column 7, lines 54-57, column 8, lines 11-20. In these sections, Fields et al. teaches impact estimates that effect the total demand, this impact shown on the models by altered demand curves.

In response to argument (4), Examiner respectfully disagrees. Examiner first notes that claim 2 recites that impact estimates can be positive or negative. See specifically column 6, lines

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23-35 and column 11, lines 1-25, wherein the impact factors will increase (positive) or decrease (negative) the projections.

In response to argument (5), Examiner respectfully disagrees. Examiner first notes that claim 3 recites “multiplied by the sales history quantities or the projected demand”. Second, Fields et al. discloses that impact estimates (percentages) that are multiplied by the sales history quantities stored in the system. See column 4, lines 1-5, column 7, lines 1-25, column 8, lines 20-32, column 11, lines 1-25, wherein impact estimates cause adjustments in the sales history.

In response to argument (6), Examiner respectfully disagrees. Claim 23 recites “evaluating an actual impact of at least one particular disruptive event that has already taken place at least a predetermined period prior to adjustment of the projected demand” and thus requires that that an event with actual impact to be evaluated took place a predetermined period before the adjustment. See column 4, lines 60-67, column 5, lines 1-6, 14-25, and 59-67, and column 6, lines 5-22, wherein the user authors the files, the files specifying the predetermined interval for updating the projected demand. Near future demand is adjusted based on actual events occurring before on an interval basis.

8. Applicant’s arguments with regards to the 35 USC 103 rejections based on Fields et al. (U.S. 5,459,656) have been fully considered, but they are not persuasive. In the remarks, Applicant argues that Fields et al. does not teach or suggest (7) ordering the application of impact estimates based on recency or distance of an event (claims 16-17).

In response to argument (7), Examiner points out that she did not assert that Fields et al. taught this limitation. Examiner asserts under 35 USC 103 that Fields et al. does not expressly

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disclose the order that the impact estimates are applied, such as beginning with a most recent disruptive event or beginning with a most distant disruptive event. See below, where Examiner asserted that since Fields et al. discloses a system wherein disruptive events (holidays, sales, etc.) have impact estimates that are used to project sales for a given day, since the system is able to store information concerning a plurality disruptive events by day, and since the system is able to break a disruptive event into a plurality of intervals (each reflecting a disruptive event), the user of the system defines how the user wants the impact estimates applied, such as starting on a certain date, at a specified interval, or at near future intervals. See column 5, lines 1-5 and 59-67, column 8, lines 10-32.

9. Applicant's arguments with regards to the 35 USC 102 rejections of claims 4, 6, and 16 based on Fields et al. (U.S. 5,459,656) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection has been established below under 35 USC 103 in based on Fields et al.

Claim Objections

10. Claims 60-61 and 63-64 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 57-58. These claims are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording. See MPEP § 706.03(k).

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11. Claims 58, 61, and 64 are objected to because of the following informalities: typographical errors. These claims each recite “the method 1”, which should more appropriately be the method of claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 101

12. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

13. Claims 1-26 and 57-64 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In order to be considered statutory, the claimed invention must produce a useful, concrete, and tangible result. An invention that fails to produce a tangible result is one that involves no more than the manipulation of an abstract idea. In order to be concrete, the result must be substantially repeatable or re-produce the same result. The result is useful when there is a real-world practical application.

Claim 1 recites calendaring a disruptive event or events and applying impact estimates on these events. Since this method merely puts an event on a schedule and applies an impact estimate on sales history or projected demand, it is respectfully submitted that this result is not useful as it produces no real-world practical application (i.e. displaying the applied impact to the user, using the applied impact to predict or adjust demand, etc.). Claims 2-58, 60-61, and 63-64 depend from claim 1 and have the same deficiencies.

Claims 59 and 62 contain substantially similar limitations to claim and therefore are also rejected under 35 USC 101 as not producing a useful result.

Claim Rejections - 35 USC § 112

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

15. Claim 62 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 62 recites “a machine readable memory with a logic adapted to adjust projected demand [...] including”, followed by a plurality of steps. It is not specifically clear from the preamble if the memory or the logic is adapted to adjust projected demand and includes the plurality of steps. Clarification is required.

Claim Rejections - 35 USC § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. Claims 1-3, 5, 7-13, 18-20, 23-26, 59, and 62 are rejected under 35 U.S.C. 102(b) as being anticipated by Fields et al. (U.S. 5,459,656).

As per claim 1, Fields et al. teaches a computer-implemented method of adjusting projected demand for one or more items at one or more locations, including:

calendaring one or more disruptive events with associated impact estimates to apply to the items at the locations, wherein disruptive events have a start date and are either open-ended or have a distant end date and an impact that is appropriately modeled by a step impact on sales

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history or projected demand (See figure 2A, column 3, lines 4-12 and line 60-column 4, line 20 and 30-42, column 7, lines 54-57, column 8, lines 11-20, wherein a disruptive event, such as a holiday, a sale, etc., is calendared using a start date, an end date and duration (which could be a day or number of days) and impact estimates that project effect on total demand. The impact of these events is shown on models by altered demand curves. See column 9, lines 35-51. The calendaring is performed using start dates. See also column 10, lines 10-15, which talk about location specific values in the calendaring); and

applying the impact estimates (See column 2, lines 5-20, column 5, lines 1-7, and column 8, lines 1-20, wherein the impact estimates are applied to project demand or update historical demand data), wherein

the impact estimates for disruptive events that already have taken place are applied to sales history quantities used to project demand (See column 4, lines 60-67, column 8, lines 1-5, column 9, lines 1-15, and column 10, lines 50-67, wherein the impact factors for the recent past are used to update the sales history quantities), and

the impact estimates for disruptive events that have not yet take place are applied to adjust the projected demand (See column 3, lines 54-66, column 4, lines 30-42, column 5, lines 1-7, and column 8, lines 10-30, wherein the impact factors for an event, such as a holiday, are used to adjust demand from normally occurring days (i.e. the difference between a normal Sunday and a promotional Sunday)).

As per claim 2, Fields et al. discloses wherein the impact estimates can be positive or negative (See column 6, lines 23-35 and column 11, lines 1-25, wherein the impact factors will increase or decrease the projections).

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As per claim 3, Fields et al. teaches wherein the impact estimates are factors multiplied by the sales history quantities or the projected demand (See column 6, lines 15-32, column 7, lines 2-20, column 11, lines 1-25, and column 12, table 1, wherein the impact estimates are multiplied).

As per claim 5, Fields et al. teaches wherein the impact estimates for disruptive events that already have taken place are factors multiplied by the sales history quantities (See column 4, lines 1-5, column 7, lines 1-25, column 8, lines 20-32, column 11, lines 1-25, wherein impact estimates (percentages) are multiplied by the sales history quantities stored in the system).

As per claim 7, Fields et al. discloses wherein calendaring involves assigning a particular disruptive event and the disruptive event's associated impact estimate to a particular start date (See figure 2A, column 4, lines 5-20, and column 8, lines 11-20, wherein a disruptive event, such as a holiday, a sale, etc., is calendared to a specific date along with associated impact estimates).

As per claim 8, Fields et al. discloses wherein calendaring involves assigning a particular disruptive event and the disruptive event's associated impact estimate to a particular start date and time (See column 3, lines 60-67, column 4, lines 5-20 and 50-60, and column 8, lines 11-20, column 10, lines 15-30, which discloses the date and time of a disruptive event through the use of time intervals).

As per claim 9, Fields et al. teaches a plurality of disruptive events (See figure 2A, column 3, lines 4-10, column 4, lines 5-20 and 30-42, wherein a plurality of disruptive events are known in the system, such as a holiday, a sale, etc. Also, see column 3, line 60-column 4, line 15, wherein the disruptive event is broken up into time intervals per day, and therefore a plurality of disruptive events occur per day).

As per claim 10, Fields et al. teaches wherein one or more of the plurality of disruptive events have not yet taken place (See figure 2A, column 3, lines 54-66, column 4, lines 30-42, column 5, lines 1-7, and column 8, lines 10-30, wherein the disruptive event(s) have not yet taken place).

As per claim 11, Fields et al. teaches wherein one or more of the plurality of disruptive events have already taken place (See column 4, lines 60-67, column 8, lines 1-5, column 9, lines 1-15, and column 10, lines 50-67, which discusses data of the recent past for a disruptive event, such as a holiday or promotion).

As per claim 12, Fields et al. teaches wherein one or more of the plurality of disruptive events have not yet taken place and one or more of the plurality of disruptive events have already taken place (See figure 2A, abstract, column 3, line 60-column 4, line 15, wherein the disruptive event, such as a holiday, is broken up into time intervals per day. Therefore, the disruptive event at morning interval A will have already occurred and the disruptive event at afternoon interval B will not have already occurred).

As per claim 13, Fields et al. teaches wherein a plurality of impact estimates for the plurality of disruptive events are combined multiplicatively (See column 3, lines 60-67, column 7, lines 2-20, column 8, lines 10-30, and column 10, lines 15-30, wherein the plurality of impact estimates for the time intervals are scaled using multiplication. Also, the entire day projection would be multiplied by a percentage, such as ten percent).

As per claim 18, Fields et al. teaches applying a plurality of forecasting techniques to the sales history quantities to derive a plurality of projected demand estimates (See column 6, lines 4-22 and 34-47, column 7, lines 30-48, column 10, lines 1-15, wherein a plurality of techniques

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as authored by the user would be applied to the sales history to derive a plurality of demand estimates).

As per claim 19, Fields et al. teaches applying a probabilistic forecast technique to the sales history quantities to derive the projected demand (See column 3, line 60-column 4, line 20, column 7, lines 2-25, column 8, lines 10-30 and line 55-column 9, line 15, wherein projections of probable demand are calculated using past sales history)

As per claim 20, Fields et al. teaches applying a segmented probabilistic forecast technique to the sales history quantities to derive the projected demand (See column 3, line 60-column 4, line 20, column 7, lines 2-25, column 8, lines 10-30 and line 55-column 9, line 15, wherein projections of probable demand are calculated using past sales history. The days are divided into segmented intervals, wherein each interval has a projection)

As per claim 23, Fields et al. teaches evaluating an actual impact of at least one particular disruptive event that has already taken place at least a predetermined period prior to adjustment of the projected demand, and adjusting the impact estimates based on the evaluated actual impact of the disruptive event (See column 4, lines 60-67, column 8, lines 1-5, column 9, lines 1-15, and column 10, lines 50-67, wherein the actual impact factors for the recent past are used to update the sales history quantities).

As per claim 24, Fields et al. teaches wherein the predetermined period is user selected (See column 4, lines 60-67, column 5, lines 1-6, 14-25, and 59-67, and column 6, lines 5-22, wherein the user authors the files, the files specifying the predetermined interval for updating the projected demand).

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As per claim 25, Fields et al. teaches wherein the predetermined period is measured in days (See column 4, lines 60-67, column 5, lines 1-6, 14-25 and 59-67, and column 6, lines 5-22, wherein the predetermined period is weeks or days).

As per claim 26, Fields et al. teaches wherein the predetermined period is measured in time increment of less than a day (See column 4, lines 60-67, column 5, lines 1-6, 14-25 and 59-67, and column 6, lines 5-22, wherein the predetermined period is an interval of a day).

Claims 59 and 62 each recite equivalent limitations to claim 1 and are therefore rejected using the same art and rationale set forth above. Fields et al. further discloses a processor, memory coupled to the processor, and logic and resources operatively coupled to the memory and processor (See column 3, lines 13-50).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 4, 6, and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fields et al. (U.S. 5,459,656).

As per claims 4 and 6, Fields et al. discloses wherein the impact estimates cause quantities to be added to the sales history quantities and the projected demand (See column 4, lines 1-14, column 6, lines 20-35, column 8, lines 20-32, wherein the impact estimates add demand quantity to the historic sales date, such as adding ten percent of items to the sales history

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for the day after thanksgiving). However, Fields et al. does not expressly disclose that the impact estimates themselves are specifically added to the sales history quantities and the projected demand.

Fields et al. discloses adjusting past sales files based on impact values, where the past sales are increased or decreased by a percentage, causing an addition or decrease in the number of items demanded and sold. Therefore, the impact estimate of Fields is more multiplicative, but could be represented by the quantity added or subtracted in the number of items demanded and sold. Therefore. It would have been obvious to one of ordinary skill in the art at the time of the invention to have the impact estimates represent the quantity added to the historic sales data in order to more efficiently produce targeted totals of demand for specific business days, such as disruptive days (promotions, sales, days near holidays, seasonal, etc.). See column 2, lines 5-20, and column 4, lines 1-30.

As per claim 14, Fields et al. teaches a plurality of impact estimates for the plurality of disruptive events have associated quantities that are combined additively to the are combined additively (See column 3, lines 60-67, and column 10, lines 15-30, wherein the plurality of impact estimates for the time intervals of the disruptive event and quantities associated with these impacts are added together to show demand projections). However, Fields et al. does not expressly disclose that the impact estimates themselves are specifically added to the sales history quantities and the projected demand.

Fields et al. discloses adjusting past sales files based on impact values, where the past sales are increased or decreased by a percentage, causing an addition or decrease in the number of items demanded and sold. Therefore, the impact estimate of Fields is more multiplicative, but

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could be represented by the quantity added or subtracted in the number of items demanded and sold. Therefore. It would have been obvious to one of ordinary skill in the art at the time of the invention to have the impact estimates represent the quantity added to the historic sales data in order to more efficiently produce targeted totals of demand for specific business days, such as disruptive days (promotions, sales, days near holidays, seasonal, etc.). See column 2, lines 5-20, and column 4, lines 1-30.

As per claim 15, Fields et al. teaches wherein a plurality of impact estimates for the plurality of disruptive events are applied (See figure 2A, column 3, lines 4-10, column 4, lines 5-20 and 30-42, wherein a plurality of disruptive events are known in the system, such as a holiday, a sale, etc. Also, see column 3, line 60-column 4, line 15, wherein the disruptive event is broken up into time intervals per day, and therefore a plurality of disruptive events occur per day). Fields et al. teaches wherein the impact estimates are factors multiplied by the sales history quantities or the projected demand (See column 6, lines 15-32, column 7, lines 2-20, column 11, lines 1-25, and column 12, table 1, wherein the impact estimates are multiplied). Further, Fields et al. discloses wherein the impact estimates cause quantities to be added to the sales history quantities and the projected demand (See column 4, lines 1-14, column 6, lines 20-35, column 8, lines 20-32, wherein the impact estimates add demand quantity to the historic sales date, such as adding ten percent of items to the sales history for the day after thanksgiving). However, Fields et al. does not expressly disclose that the impact estimates themselves are specifically added to the sales history quantities and the projected demand.

Fields et al. discloses adjusting past sales files based on impact values, where the past sales are increased or decreased by a percentage, causing an addition or decrease in the number

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of items demanded and sold. Therefore, the impact estimate of Fields is more multiplicative, but could be represented by the quantity added or subtracted in the number of items demanded and sold. Therefore. It would have been obvious to one of ordinary skill in the art at the time of the invention to have the impact estimates represent the quantity added to the historic sales data in order to more efficiently produce targeted totals of demand for specific business days, such as disruptive days (promotions, sales, days near holidays, seasonal, etc.). See column 2, lines 5-20, and column 4, lines 1-30.

As per claims 16 and 17, Fields et al. teaches wherein a plurality of impact estimates for the plurality of disruptive events are applied (See figure 2A, column 3, lines 4-10, column 4, lines 5-20 and 30-42, wherein a plurality of disruptive events are known in the system, such as a holiday, a sale, etc. Also, see column 3, line 60-column 4, line 15, wherein the disruptive event is broken up into time intervals per day, and therefore a plurality of disruptive events occur per day).

However, Fields et al. does not expressly disclose the order that the impact estimates are applied, such as beginning with a most recent disruptive event or beginning with a most distant disruptive event.

Fields et al. discloses a system wherein disruptive events (holidays, sales, etc.) have impact estimates that are used to project sales for a given day. The system is able to store information concerning a plurality disruptive events by day and the system can also break a disruptive event into a plurality of intervals, each interval also reflecting a disruptive event. The user of the system defines how the user wants the impact estimates applied, such as starting on a certain date, at a specified interval, or at near future intervals. See column 5, lines 1-5 and 59-

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67, column 8, lines 10-32. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the impact estimates in any order specified by the user in order to make more appropriate and accurate projections by allowing the user to “author” what specifically the user needs projected. See column 2, lines 15-20, column 5, lines 14-25, of Fields et al.

20. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fields et al. (U.S. 5,459,656) in view of Crosswhite (U.S. 6,611,726).

As per claim 21, Fields et al. applying forecasting techniques to the sales history quantities to derive the projected demand for businesses items (See column 3, line 60-column 4, line 20, column 7, lines 2-25, column 8, lines 10-30 and line 55-column 9, line 15, wherein projections of demand are calculated using past sales history). However, Fields et al. does not expressly disclose applying a regression forecast technique to the sales history quantities.

Crosswhite discloses applying a regression forecast technique to the sales history quantities to predict future product demand from historical demand data (See column 3, lines 39-67, which discusses regression techniques).

Both Fields et al. and Crosswhite disclose forecasting demand applying forecasting techniques to historical demand data. It would have been obvious to one of ordinary skill in the art at the time of the invention to use regression techniques to project demand in order to more accurately forecast product demand from historical demand data by utilizing a time-series forecasting method that uses data collected at evenly spaced intervals, such as the intervals

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(periods in a day, days, weeks) of Fields et al. See column 3, lines 39-55, and column 4, lines 9-15, of Crosswhite that discusses the technique and benefits of regression time series forecasting.

As per claim 22, Fields et al. applying forecasting techniques to the sales history quantities to derive the projected demand (See column 3, line 60-column 4, line 20, column 7, lines 2-25, column 8, lines 10-30 and line 55-column 9, line 15, wherein projections of demand are calculated using past sales history). However, Fields et al. does not expressly disclose applying an ARIMA forecast technique to the sales history quantities.

Crosswhite discloses using Autoregressive Integrated Moving Average (ARIMA) methods to predict future product demand from historical demand data (See column 3, lines 39-60, which discusses ARIMA).

Both Fields et al. and Crosswhite disclose forecasting demand applying forecasting techniques to historical demand data. It would have been obvious to one of ordinary skill in the art at the time of the invention to use ARIMA to project demand in order to more accurately forecast product demand from historical demand data by utilizing a time-series forecasting method that uses data collected at evenly spaced intervals, such as the intervals (periods in a day, days, weeks) of Fields et al. See column 3, lines 39-55, and column 4, lines 9-15, of Crosswhite that discusses the technique and benefits of ARIMA time series forecasting.

21. Claims 57, 60, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fields et al. (U.S. 5,459,656) in view of Waller et al. (U.S. 2003/0195791).

As per claim 57, Fields et al. teaches disruptive events with demand implications (See figure 2A, column 3, lines 4-12 and line 60-column 4, line 20 and 30-42, column 7, lines 54-57,

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column 8, lines 11-20, wherein a disruptive event, such as a holiday, a sale, etc., is calendared using impact estimates, where the impact of these events is shown on models by altered demand curves. See column 9, lines 35-51. The calendaring is performed using start dates. See also column 10, lines 10-15, which talk about location specific values in the calendaring). However, Fields et al. does not expressly disclose the disruptive event representing cannibalization of sales or demand for a first item at a particular location by introducing a second item at the particular location.

Waller et al. discloses disruptive event representing cannibalization of sales or demand for a first item at a particular location by introducing a second item at the particular location (See paragraphs 17, 354, 356, which discloses the cannibalization of demand).

Fields et al. discloses forecasting demand by applying forecasting techniques to historical demand data. Fields et al accounts for events that will impact the estimates of sales. Waller et al. discloses competition between products causing cannibalization. It would have been obvious to one of ordinary skill in the art at the time of the invention to include inter-item competition in the disruptive events of Fields et al. in order to make more appropriate and accurate projections by including all situations that impact demand. See column 2, lines 15-20, column 5, lines 14-25, of Fields et al. See also paragraphs 17, 354, 356 of Waller et al.

Claims 60 and 63 are substantial duplicates of claim 57 and are therefore also rejected using the same art and rationale above.

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22. Claims 58, 61, and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fields et al. (U.S. 5,459,656) in view of Ghosh et al. ("Formulating Retail Location Strategy in a Changing Environment").

As per claim 58, Fields et al. teaches disruptive events with demand implications based on times and events (See figure 2A, column 3, lines 4-12 and line 60-column 4, line 20 and 30-42, column 7, lines 54-57, column 8, lines 11-20, wherein a disruptive event, such as a holiday, a sale, etc., is calendared using impact estimates, where the impact of these events is shown on models by altered demand curves. See column 9, lines 35-51. The calendaring is performed using start dates. See also column 10, lines 10-15, which talk about location specific values in the calendaring). However, Fields et al. does not expressly disclose that the disruptive event represents opening or closing of a competing store that impacts sales or demand at the location.

Ghosh et al. discloses disruptive events including opening or closing of a competing store that impacts sales or demand at the location (See page 58, page 60, column 1, page 62, column 1, which discuss effects of opening or closing stores).

Fields et al. discloses forecasting demand by applying forecasting techniques to historical demand data. Fields et al. specifically accounts for events that occur at specific starting times and will impact the estimates of sales. Ghosh et al. discloses the impacts of opening or closing stores. It is well known in the art that stores open and close over time, and it is further well known in the marketing arts to consider competition within the market. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the competition of Ghosh et al. in the disruptive events of Fields et al. in order to make more

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appropriate and accurate projections by including all situations that impact demand. See column 2, lines 15-20, column 5, lines 14-25, of Fields et al.

Claims 61 and 64 are substantial duplicated of claim 57 and are therefore also rejected using the same art and rationale above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (571) 272-6737.

The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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January 19, 2007

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AU 3623